

REMARKS

Claims 21-34 were all rejected as obvious under 35 U.S.C 103(a) over Feathers (4,377,163) in combination with a newly cited reference to Olivia (5,540,368) or Feathers in combination with both Olivia and Feder (5,267,815). Claims 21 and 25 have been amended and claim 35 has been added.

Claim 21 was rejected as unpatentable over Feathers in combination with Olivia. Claim 21 provides a harness having two configurations, both configurations achieved during the use of a cylinder with breathing equipment. In the first configuration, the cylinder is attached to the belt portion by both the mounting means and the retaining means. In the second configuration, the cylinder is attached to the belt portion by the retaining means alone. As noted in the written description such a feature allows a user to, for example, detach the cylinder from the harness so that the user can maneuver through a narrow space, while continuing to maintain the cylinder securely connected to the user and while the user continues to receive air from the cylinder (See also Application pg 7, line 29 - pg 8 line 10).

Feathers fails to teach or suggest a harness having the claimed configurations. The attachment device disclosed by Feathers provides a single fastening means that *both* connects the cylinder assembly 2 into the breathing circuit and secures the cylinder assembly to the harness 1. (Feathers col. 4, lines 25-29). Hence, when Feathers' fastening means is disconnected, the cylinder will not remain connected to the belt portion of the harness. Consequently, Feathers' attachment means prevents a user from being able to detach the cylinder of gas from the user's harness without interrupting the flow of air from the cylinder to the user. For example, if a user of Feathers' device needed to remove the cylinder from the harness, the user would have to unscrew internally screwthreaded ring 30 thereby disconnecting valve 15 from valve 11, consequently stopping the flow of gas from the cylinder to hose 16 and ultimately the user's facemask 18 (i.e. the breathing equipment). Accordingly, if a user of Feathers' device had to get through an opening too narrow for them to fit through with the harness, the user's options would be to either disconnect her air supply or remove the entire harness, both of which the claimed invention prevent.

The proposed modification of Feathers with Olivia does not render the claimed invention obvious because combining the holster of Olivia with Feathers prevents Feathers from achieving the claimed configurations. The holster of Olivia provides an engagement and disengagement mechanism in the form of a male adapter 28 and female adapter 22. Engaging an object equipped with this type of engagement mechanism requires vertically sliding the object with male adapter 28 into female adapter 22. (See Fig 5) However, when Feathers' cylinder assembly is connected to the breathing circuit it "is prevented from being displaced upwards or downwards." (Feathers col. 4, lines 1-29; Fig. 2). Accordingly, the cylinder assembly of Feathers' could not be disengaged from the engagement means of Olivia without disconnecting the cylinder assembly from the breathing circuit. Since the claimed invention requires a harness having two configurations, both of which require maintaining the cylinder in use with the breathing equipment, the claimed invention should be patentable over the proposed combination, which is unable to achieve these dual configurations.

Additionally, combining the features of Olivia with Feathers is not obvious because this would render Feathers' device unsatisfactory for its intended purpose, as this would significantly increase the period required to remove and replace a spent cylinder, which Feathers expressly seeks to minimize. (Feathers col. 1, lines 19-23 "it is a desirable characteristic of such apparatus for the cylinder assembly to be mountable to, and demountable from the rest of the apparatus in a quick and simple manner..."). This addition alone would not be obvious because instead of decreasing the time it would take to remove the cylinder, which Feathers aims to do, this addition increases the time and makes the removal process more complicated. Instead of simply unscrewing ring 30 to remove the cylinder from the user's harness, the user of a device combining the inventions of Feathers and Olivia would have to unscrew the ring of Feathers and disengage the male/female adaptors of Olivia.

Applicant also notes that merely substituting the engagement and disengagement device provided by Olivia for the attachment means of Feathers is unachievable without rendering Feathers' device inoperable. The foregoing statement is true at least because the engagement means provided by Olivia do not provide a connection between a cylinder and a valve connected to an air supply line.

Adding the adapters and strap of Olivia to Feathers compounds the aforementioned problems and provides a device that still does not teach or suggests the claimed configurations. As expressly noted by the Examiner in the pending office action and as disclosed by Olivia, strap 50 provides additional securement to the object “for the purpose of securing and immobilizing the movement of the object” attached to the belt. (OA dated 4.17.09, pg 3; Olivia col. 7, lines 6-13). The *immobilization* provided by Olivia’s strap in combination with the fastening means of Feathers prevents the second configuration from being exhibited. The fastening means of Feathers prevents movement of the cylinder without disconnecting the cylinder from the user’s breathing equipment. Securing the cylinder further with an *immobilizing* strap as provided by Olivia simply reinforces this impediment to motion and prevents a cylinder from being disengaged from the holster while still attached to the breathing equipment.

Instead of immobilizing an object as the Olivia device does and instead of resisting any movement of the cylinder without disconnecting the cylinder from the hose supplying air to the user as Feathers does, the retaining means claimed facilitates mobility of a cylinder away from the harness without sacrificing the security of that cylinder to a user’s supply line.

Claim 26 further highlights the foregoing points as it requires that in the second configuration the user be able to move the cylinder freely about his person whilst retaining attachment to the cylinder by the retaining means. The fastening system of Feathers and Olivia both prevent freely moving the cylinder about the user’s person while connected to the breathing equipment, disengaged from the mounting means, and connected to the retaining means. Belt 50 maintains an object adjacent to the user’s harness such that the user would not be able to move the object freely about his person. The fastening device of Feathers also maintains the cylinder adjacent to the harness such that a user could not move the cylinder freely about his person without disconnecting the cylinder from the user’s breathing equipment.

In view of the foregoing distinctions, Applicant submits that claim 21 is patentable over the combination of Feathers and Olivia.

Furthermore, combining Feder with either or both of Feathers and Olivia does not render the claimed invention obvious, because Feder does not teach a mounting means

and retaining means that would allow the harness of either Feathers or Olivia to achieve the claimed configurations.

Claims 22-34 all depend either directly or indirectly from claim 21 and should be patentable over Feathers, Olivia, and Feder for at least the same reasons that claim 21 is.

Claim 35 should also be patentable over Feathers, Olivia, and Feder, because in addition to the structural incompatibility of Feathers and Olivia that prevent the devices from functioning if combined, neither Feathers nor Olivia disclose a retaining strap as claimed. As highlighted by the Examiner and discussed above, strap 50 of Olivia immobilizes an object attached thereby. The claimed strap extends thereby promoting mobility of the cylinder while maintaining the cylinder's connection to the belt portion of the harness. Furthermore, it would not have been obvious to combine such a feature to Feathers device, because as previously noted, the means by which Feathers' cylinder is connected to his harness is the same means by which the cylinder is connected to the breathing circuit. Accordingly, providing mobility to Feathers' cylinder requires disconnecting the cylinder from breathing circuit, which is precisely one advantage that the current device promotes, namely an ability to quickly disconnect a cylinder of breathable gas from a user's person while allowing the user to continue to receive gas from the cylinder.

For the reasons set forth above, it is submitted that all pending claims are allowable over the art of record. Reconsideration of the claims and a notice of allowance are therefore respectfully requested.

Respectfully submitted,

/Moses A. Heyward, #61,140/

Moses A. Heyward
Registration No. 61,140
Attorney for Applicant

Sunstein Kann Murphy & Timbers LLP
125 Summer Street
Boston, MA 02110-1618
(617) 443-9292